

## Claims

1. An injection device (1) especially for bone cement, comprising
  - A) a syringe body (3) with a longitudinal axis (2), a front end (6), a connecting piece (8), disposed at the front end (6) and having a coaxial borehole (21), and a coaxial cavity (4),
  - B) an injection piston (5), which can be shifted coaxially in the cavity (4) and
  - C) a cannula (13), which can be connected with the connecting piece (8), with a central borehole (14) and a rear end (15),
  - D) the front end (6) of the syringe body (3) having a transition segment (22) with a coaxial borehole (9) connecting the cavity (4) with the borehole (21) in the connecting piece (8),  
characterized in that
  - E) the borehole (9) in the transition segment (22) and the central borehole (14) have the same cross-sectional area orthogonal to the longitudinal axis (2) at least at the rear end (15) of the cannula (13).
2. The injection device (1) of claim 1, characterized in that the central borehole (14) of the cannula (13) has a constant cross-sectional area  $q$  in the axial direction.
3. The injection device (1) of claims 1 or 2, characterized in that the cavity (4) has a cross-sectional area  $Q$ , which is orthogonal to the longitudinal axis (2), and that the ratio of the cross sectional areas  $q : Q$  is between 1 and 0.01 and preferably between 1 and 0.02.
4. The injection device (1) of one of the claims 1 to 3, characterized in that the cavity (4) has a cross-sectional area  $Q$ , which is orthogonal to the longitudinal axis (2) and that the ratio of the cross sectional areas  $q : Q$  is between 0.200 and 0.033 and preferably between 0.2 and 0.05.

5. The injection device (1) of one of the claims 1 to 4, characterized in that the borehole (9) has an internal thread (10) in the connecting piece (8).

6. The injection device (1) of claim 5, characterized in that the cannula (13) at the rear (15) comprises means (16) for screwing it into the internal thread (10).

7. The injection device (1) of claim 6, characterized in that the means (16) are an external thread, which is complementary to the internal thread (10).

8. The injection device (1) of one of the claims 1 to 7, characterized in that the connecting piece (8) is constructed as a luer lock adapter without an internal conical element.

9. The injection device (1) of one of the claims 5 to 8, characterized in that the diameter of the borehole (9) in the transition segment (22) and the geometry of the internal thread (10) in the connecting piece (8) correspond to those of a luer lock connection.

10. The injection device (1) of one of the claims 6 to 9, characterized in that the means (16) for screwing into the internal thread (10) are constructed as a luer lock adapter.